MASPS for ADS-B Rev. A

Tracking Information (committee secretary only)	
Change Issue Number	42
Submission Date	06/04/01
Status (open/closed/deferred)	WITHDRAWN
Last Action Date	08/30/01

Short Title for Change Issue:	Altitude encoder and altimetry self-test feature

MASPS Document Reference:		Originator Information:	
Entire document (y/n)		Name	Bill Flathers
Section number(s)	Appendix E +	Phone	(703) 883-7578
Paragraph number(s)		E-mail	Bill.Flathers@AOPA.org
Table/Figure number(s)		Other	

Proposed Rationale for Consideration (originator should check all that apply):	
X	Item needed to support of near-term MASPS/MOPS development
X	DO-260/ED-102 1090 MHz Link MOPS Rev A
X	ASA MASPS
	TIS-B MASPS
X	UAT MOPS
X	Item needed to support applications that have well defined concept of operation
	Has complete application description
X	Has initial validation via operational test/evaluation
	Has supporting analysis, if candidate stressing application
	Item needed for harmonization with international requirements
	Item identified during recent ADS-B development activities and operational evaluations
X	MASPS clarifications and correction item
X	Validation/modification of questioned MASPS requirement item
	Military use provision item
	New requirement item (must be associated with traffic surveillance to support ASAS)

Nature of Issue:		Editorial		Clarity		Performance	X	Functional

Issue Description:

Currently, the altitude reporting function of aircraft transponders (the altitude encoder) must be periodically tested/certified. In addition, for those operators desiring to fly in Reduced Vertical Separation Minima (RVSM) airspace, periodic checks and verification of barometric altimetry and altitude-keeping performance are required. For both of these situations, ADS-B provides an opportunity for a more meaningful and timely operational validation of performance, thereby increasing operational safety and reducing costs. As with Issue Paper 41 on ELT's, this would increase the attractiveness of ADS-B to the user community. Again, this is not a flagship application, but it would seem appropriate to ensure that all the appropriate message elements are there in the MASPS to support it.

Originator's proposed resolution if any:

First, it is proposed that the MASPS be reviewed with this application in mind to ensure that provisions are made for the message elements to support it. It is also suggested that the application be described more completely as a guide to how basic ADS-B messages can be used to verify altitude encoder and altimetry performance.

Working Group 6 Deliberations:

August 30, 2001: This Issue Paper was reviewed at the August WG6 meeting. It was agreed by its author to withdrawal this Issue Paper, since the proposal would be an ADS-B application, rather than a contained feature within the ADS-B surveillance system. WG6 agreed to tighten the wording in the State Vector requirements that both barometric and geometric altitude are to be transmitted when available. (AI 7-11) This MASPS change will enable this application to be developed in the future.

September 27, 2001: At the September WG6 meeting, 242A-WP-8-05 was presented which documents comments from WG2 (TIS-B MASPS) on this issue paper and the potential for it being a ground-based TIS-B function. WG6 reiterated its belief that it plans to do all it can on this subject with the completion of Action Item 7-11.